

**REMARKS**

Claims 1-29 are pending. In order to advance prosecution, Claims 1, 4, 5, 6, 7, 9, 13, 15, 17, 18, 19, 20, 21, 24, and 27 are amended without prejudice and without acquiescence, and claims 26 and 29 have been canceled without prejudice and without acquiescence. Claims 30-31 have been added. Support for these claims can be found throughout the specification and the original claims. Applicants retain the right to file a continuation application on any canceled subject matter. The drawings have also been amended as requested by the Examiner. Applicants assert that no new matter has been added.

The issues outstanding in this application are as follows:

- Claim Suggestions
- Claims 1-10 and 12-29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Onishi et al. (US 5,547,472).
- Claim 11 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Onishi et al. (US 5,547,472) in view of Swatek. (US 6,015,266).

Applicant respectfully traverses the outstanding objections and rejections, and applicant respectfully requests reconsideration and withdrawal thereof in light of the amendments and remarks contained herein.

**I. Claim Suggestions**

Applicants have amended Claims 1, 15, and 24 as suggested by the Examiner, without prejudice and without acquiescence.

**II. Issues under 35 U.S.C. § 102(b)**

Claims 1-10 and 12-29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Onishi et al. (US 5,547,472). The applicant respectfully traverses this rejection.

The Onishi patent teaches a stimulus responsive polymer attached to pores of a catheter or balloon catheter so that fluid transmission through the pores may be controlled by

a stimulus. Specifically, the Onishi patent teaches a polymer responsive to a stimulus attached to the pores by grafting, crosslinking, insolubilization, coating, and surface polymerization. Nowhere in the patent does Onishi teach the desire to employ a micro channel structure. Additionally, nowhere in the patent does Onishi teach or suggest the desire to define a liquid transportation system that is present on a plate comprising one or more liquid transportation systems.

In order to advance prosecution of the application, independent claims 1 and 13 have been amended without prejudice and without acquiescence to include the phrase “said micro channel structure defining a liquid transportation system that is present on a plate comprising one or more of said liquid transportation systems.” Claims 2-10 and 12 and 14-29 depend from claims 1 and 13. In view of the above, the amended claims, and the dependent claims depending therefrom, are therefore not anticipated by Onishi et. al. Thus, the applicant respectfully requests removal of this rejection.

Dependent Claim 27 has been rejected as a product-by-process claim. Dependent Claim 27 has been amended without prejudice and without acquiescence to clarify the claim. Thus, the applicant respectfully requests removal of this rejection.

### **III. Issues under 35 U.S.C. § 103(a)**

Claim 11 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Onishi et al. (US 5,547,472) in view of Swatek. (US 6,015,266). The applicant respectfully traverses this rejection.

Onishi teaches a polymer responsive to a stimulus attached to the pores in a catheter or balloon catheter by grafting, crosslinking, insolubilization, coating, and surface polymerization, while Swatek relates to a pumping system with a chamber filled with a reactive polymer responsive to environmental changes to fill or empty the chamber. Neither Onishi nor Swatek, alone or in combination, suggest a micro channel structure defining a liquid transportation system that is present on a plate, as claimed by the amended claims. Additionally, there is no teaching or suggestion that would be obvious to one having ordinary skill in the art to modify the invention of Onishi as taught by Swatek to arrive at the claimed

invention. *See In re Linter*, 458 F.2d 1013 (C.C.P.A. 1972); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

As previously mentioned, in order to advance prosecution of the application, independent claim 1 has been amended without prejudice and without acquiescence to include the phrase "said micro channel structure defining a liquid transportation system that is present on a plate comprising one or more of said liquid transportation systems". In view of the above, both of these references alone or in combination, fail to teach or suggest all the limitations of claims 1 and 13. Regarding dependent claim 11, if an independent claim is non-obvious under 35 U.S.C. § 103(a), then any claim depending therefrom is by definition non-obvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Dependent claim 11 depends from amended independent claim 1 and thus contains all the limitations of the independent claim and is non-obvious. A prima facie case of obviousness has not been established, and the applicant respectfully requests removal of this rejection.

### Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2375, under Order No. 10112402 from which the undersigned is authorized to draw.

Dated: January 7, 2005

Respectfully submitted,

By   
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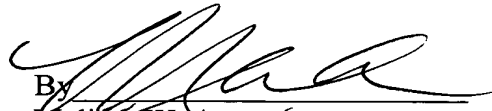
Application No.: 10/030,297

Docket No.: HO-P02352US0

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-2375, under Order No. 10112402.

Dated: January 7, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Maeosta', written over a horizontal line.

By  
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**AMENDMENTS TO THE DRAWINGS**

The attached sheet(s) of drawings includes changes to:

Figures 1 and 2 have been amended, adding a legend noting “prior art,” as requested by the Examiner.